

## ABSTRACT OF THE DISCLOSURE

A system and method for estimating a channel in a wireless receiver is disclosed.

The method preferably applies to a communication system using the OFDM standard.

- 5 The method comprises receiving a block of "n" transmitted symbols, the symbols including pilot symbols and "d" data symbols, estimating a channel using the pilot symbols to create a channel estimate, choosing a group of "m" strongest symbols from the "d" received symbols, compensating the "m" strongest symbols using the channel estimate to create a group of "m" compensated symbols, re-estimating the channel using
- 10 the group of "m" compensated symbols and pilot symbols; and either (1) repeating the steps of choosing a group of "m" strongest symbols, compensating the group of "m" strongest symbols and re-estimating the channel, or (2) using a latest channel estimate to compensate all symbols within the block. The system comprises a wireless receiver having an estimator programmed, for example, using DSP or ASIC and imbedded into
- 15 the wireless system design software for accomplishing the steps set forth according to the method.

09878555-061101